

2004 Kansas Job Vacancy Survey Methodology

Sample

Information from the 2004 Kansas Job Vacancy Survey comes from a selected sample of 4,667 firms from the Kansas Covered Employment and Wages (CEW) Program. This program maintains a quarterly database of non-agricultural employment from employers subject to the Kansas Unemployment Insurance Law. The sample was selected in January of 2004, using employer information taken from the records for the second quarter of 2003. It was stratified by major industry and size class to represent the universe of employers in the five Local Areas throughout the State of Kansas. The sample was drawn using software produced by BLS, and was selected with a 10 percent relative standard error and adjusted for a desired 60 percent response rate.

The universe for the survey sample included all employers in Kansas that employed at least one employee and included private employers, federal government, state government and local government employers.

Four firm sizes were used based upon the number of employees reported through the Kansas CEW Program: Very Small (1-4 employees), Small (5-49), Medium (50-249) and Large (250 or more). When selecting the sample, certainty was given to the employers in the Large size.

Twenty major industry sectors, defined by the 2002 North American Industry Classification System (NAICS) are represented in the sample. Table 1 on the following page describes the major industry sectors.

Firms excluded from the sampling process included those in the private households, temporary help services, professional employer organizations and those firms with no employees.

A separate survey sample was drawn for each of the five Local Areas, considered as planning regions under the Workforce Investment Act (WIA). In addition, a special survey sample was drawn specifically for Shawnee County to obtain data necessary for the contract between LMIS and GO Topeka, a division of the Greater Topeka Chamber of Commerce.

Survey Instrument

The survey was conducted over a three-month period from April 7, 2004 to July 7, 2004 (second quarter of 2004). A pre-survey postcard was mailed in March to firms selected in the sample. This postcard notification assisted analysts with the address correction process. The survey was mailed to 4,667 firms on April 7, 2004. Two additional survey mailings were sent to non-respondents on May 3, 2004 and June 1, 2004. Respondents were provided a postage paid return envelope, in addition to the option of responding via the Internet, fax or by phone. Follow-up telephone calls were also made to non-respondents, from June 17 through July 7, in an effort to obtain the information for specific industry and size classes, in specific areas.

Employers surveyed were asked to provide information on current job vacancies at the time of the survey, therefore, these estimates are considered as point-in-time estimates. Survey respondents were asked to report job titles and the number of job vacancies for which they were recruiting. For each job title, they were also asked to provide education and experience requirements, wages and benefits offered and the length of time job vacancies had been open.

TABLE 1	
NAICS INDUSTRY	INDUSTRY DESCRIPTION
Agriculture	Firms engaged in growing crops, raising animals, harvesting timber, and harvesting fish and other animals from farms, ranches, or the animals' natural habitats.
Mining	Firms engaged in extracting naturally occurring mineral solids, such as coal and ore; liquid minerals, such as crude petroleum; and gases, such as natural gas; and beneficiating (e.g., crushing, screening, washing, and flotation) and other preparation at the mine site, or as part of mining activity.
Utilities	Firms engaged in generating, transmitting, and/or distributing electricity, gas, steam, and water and removing sewage through a permanent infrastructure of lines, mains, and pipe.
Construction	Firms engaged in erecting buildings and other structures (including additions); heavy construction other than buildings; and alterations, reconstruction, installation, and maintenance and repairs.
Manufacturing	Firms engaged in the mechanical, physical or chemical transformation of materials, substances or components into new products.
Wholesale trade	Firms engaged in selling or arranging for the purchase or sale of goods for resale; capital or durable nonconsumer goods; and raw and intermediate materials and supplies used in production, and providing services incidental to the sale of the merchandise.
Retail trade	Firms engaged in retailing merchandise generally in small quantities to the general public and providing services incidental to the sale of the merchandise.
Transportation and warehousing	Firms engaged in providing transportation of passengers and cargo, warehousing and storing goods, scenic and sightseeing transportation, and supporting these activities.
Information	Firms engaged in distributing information and cultural products, providing the means to transmit or distribute these products as data or communications, and processing data.
Finance and insurance	Firms involved in the creation, liquidation, or change in ownership of financial assets (financial transactions) and/or facilitating financial transactions.
Real estate and rental and leasing	Firms engaged in renting, leasing, or otherwise allowing the use of tangible or intangible assets (except copyrighted works), and providing related services.
Professional and technical services	Firms that perform professional, scientific, and technical services for the operations of other organizations.
Management or companies and enterprises	Firms engaged with the holding of securities of companies and enterprises, for the purpose of owning controlling interest or influencing their management decision, or administering, overseeing, and managing other establishments of the same company or enterprise and normally undertaking the strategic or organizational planning and decision making of the company or enterprise.
Administrative and waste services	Firms that perform routine support activities for the day-to-day operations of other organizations.
Educational services	Firms that provide instruction and training in a wide variety of subjects.
Health care and social assistance	Firms engaged with providing health care and social assistance for individuals.
Arts, entertainment and recreation	Firms that are engaged with operating or providing services to meet varied cultural, entertainment, and recreational interests of their patrons.
Accommodation and food services	Firms that provide customers with lodging and/or preparing meals, snacks and beverages for immediate consumption.
Other services, except public administration	Firms engaged in providing services not elsewhere specified, including repairs, religious activities, grant making, advocacy, laundry, personal care, death care, and other personal services.
Government (or public administration)	Firms that include administration, management, and oversight of public programs by Federal, State, and local governments.

Job Titles

Employers were asked to provide the names of the job titles that were currently open-for-hire. Analysts reviewed these job titles and matched them to a corresponding occupation using the Standard Occupational Classification (SOC) system. The SOC is a four-tiered structure with 820 detailed occupations that can be summarized into 450 broad occupations, 98 minor occupational groups and 23 major occupational groups. For the purposes of this study, occupational information is presented at both the major occupational group and detailed occupational levels. Major occupational groups are listed in Table 2.

Analysts were careful to match vague titles, such as “seasonal worker” to appropriate codes by contacting employers or examining detailed industry, wage, education and experience information. Questionable titles that could not be linked to a specific SOC code, mainly due to lack of detailed information, were placed in a more general occupational category. Results from this coding process resulted in 459 detailed occupations with reported job vacancies within the state.

TABLE 2	
MAJOR OCCUPATIONAL GROUP	SAMPLE OCCUPATION
Management	Restaurant Managers, Educational Administrators and Marketing Managers
Business and Financial Operations	Accountants, Loan Officers and Human Resource Specialists
Computer and Mathematical	Database Administrators, Programmer Analysts and Technical Support Specialists
Architecture and Engineering	Landscape Architects, Electrical Engineers and Draftpersons
Life, Physical and Social Science	Environmental Scientists, Geologists and Marketing Consultants
Community and Social Service	Rehabilitation Counselors, Case Managers and Social Workers
Legal	Attorneys, Legal Assistants and Abstractors
Education, Training and Library	Post Secondary Teachers, Special Education Teachers and Paraprofessionals
Art, Design, Entertainment and Media	Graphic Designers, Coaches and Editors
Healthcare Practitioners and Technical	Pharmacists, Registered Nurses and Medical Records Clerks
Healthcare Support	Certified Nurse Aids, Pharmacy Aids and Health Assistants
Protective Service	Correction Officers, Police Officers and Lifeguards
Food Preparation and Serving Related	Cooks, Waiters, Waitresses and Bartenders
Building, Grounds Cleaning, Maintenance	Janitors, Housekeepers and Landscaping Workers
Personal Care and Service	Child Care Workers, Cosmetologists and Recreation Workers
Sales and Related	Cashiers, Retail Salespersons and Telemarketers
Office and Administrative Support	Customer Service Representatives, Tellers and Receptionists
Farming, Fishing and Forestry	Greenhouse Laborers and Elevator Operators
Construction and Extraction	Construction Laborers, Carpenters and Plumbers
Installation, Maintenance and Repair	Auto Technicians, Maintenance Technicians and Millwrights
Production	Production Workers, Bakers and Welders
Transportation and Material Moving	Bus Drivers, Truck Drivers and Loaders

Estimation

Estimates were prepared for each of the five Local Areas. In addition, a special report was prepared specifically for Shawnee County for the contract between LMIS and GO Topeka. The counties that are in each Local Area are listed below.

The sample software weighted each employer relative to others in the area in the same industry and of the same size. After the data collection was complete, the weight assigned to each firm was modified, based upon response status. This new weight was used to determine the estimate of the number of job vacancies for each occupation.

The Estimates Delivery System (EDS) provided occupational employment estimates for the State of Kansas, the five Local Areas and for Shawnee County. EDS is a system for producing occupational wage and employment statistics from the results of the annual Occupational Employment Survey (OES). EDS is particularly useful because it allows for the calculation of employment within occupational groups and detailed occupations for user-defined areas, including the state. The most current employment data from EDS was used to assist with the calculation of the job vacancy rate by occupation. The benchmark employment used for this study was the average of the November 2002 employment and the May 2003 employment.

The NAICS system, described in the Sample Section of this Methodology Report, provided industry data to assist with the calculation of the job vacancy rate by industry.

LOCAL AREA I

Barber
Barton
Chase
Cheyenne
Clark
Cloud
Comanche
Decatur
Dickinson
Edwards
Ellis
Ellsworth
Finney
Ford
Gove
Graham
Grant
Gray
Greeley
Hamilton
Harvey
Haskell
Hodgeman
Jewell
Kearny
Kiowa
Lane
Lincoln
Logan
McPherson
Marion

Meade
Mitchell
Morris
Morton
Ness
Norton
Osborne
Ottawa
Pawnee
Phillips
Pratt
Rawlins
Reno
Republic
Rice
Rooks
Rush
Russell
Saline
Scott
Seward
Sheridan
Sherman
Smith
Stafford
Stanton
Stevens
Thomas
Trego
Wallace
Wichita

LOCAL AREA II

Atchison
Brown
Clay
Doniphan
Douglas
Franklin
Geary
Jackson
Jefferson
Marshall
Nemaha
Osage
Pottawatomie
Riley
Shawnee
Wabaunsee
Washington

LOCAL AREA III

Johnson
Leavenworth
Wyandotte

LOCAL AREA IV

Butler
Cowley
Harper
Kingman
Sedgwick
Sumner

LOCAL AREA V

Allen
Anderson
Bourbon
Chautauqua
Cherokee
Coffey
Crawford
Elk
Greenwood
Labette
Linn
Lyon
Miami
Montgomery
Neosho
Wilson
Woodson

Wages

The respondents were asked to provide the expected compensation for each job opening. Annual compensation was converted to an hourly rate for the purposes of this study by dividing by 2,080 hours. Hourly wages for teachers were based on a 9.5 month year, therefore, dividing the annual compensation by 1,647 hours.

Some respondents did not report the expected wage compensation for the reported job openings. This was the case in 15.5 percent of the job openings.

The average wage offered does not include wage information for any occupations paid by special pay arrangements. For example, some truck drivers are paid a certain amount per load and some part-time post-secondary teachers are paid per credit hour.

All wages reported below the federal minimum wage of \$5.15 an hour were adjusted to that amount. The average wage offer may not include all monies received from tips since the amount of tip received is unknown. This is the case for particular occupations, such as a waitress, where the compensation reported by a respondent was \$2.13 an hour, plus tips. In cases such as this, \$5.15 was used to assist with calculating an average wage offer.

Responses

Usable responses were received from 3,035 employers, a participation rate of 65 percent, resulting in statistically reliable data. Table 3 below shows the response rate for each area. Tables 4 through 17 include totals for each area in each industry and size cell.

In addition to the 3,035 respondents that completed the survey, the following non-usable responses were received: Out of business (44), Refused to response (5) Postal returns not re-mailed (13) Out of scope (7) Unusable (3).

The highest volume of responses (72.2 percent) was received by mail, with 11.6 percent by fax and 5.3 percent by phone. Only 2.6 percent of the respondents utilized the Web-based version of the survey. Follow-up telephone calls to obtain survey information provided 5.3 percent of the responses and 2.5 percent of the survey information was secured from the firm's Web site.

TABLE 3			
AREA	SAMPLE	RECEIVED	RESPONSE RATE
<u>TOTAL</u>	<u>4,667</u>	<u>3,035</u>	<u>65%</u>
Local Area I	953	675	71%
Local Area II	927	630	68%
Local Area III	1,250	777	62%
Local Area IV	893	564	63%
Local Area V	473	341	72%
Balance of State	171	48	28%
Shawnee County	379	248	65%

TABLE 4			
STATEWIDE SIZE	SAMPLE	RECEIVED	RESPONSE RATE
<u>TOTAL</u>	<u>4,667</u>	<u>3,035</u>	<u>65%</u>
Very Small (1-4 employees)	561	335	60%
Small (5-49 employees)	2,189	1,408	64%
Medium (50-249 employees)	1,344	909	68%
Large (250 or more)	573	383	67%

TABLE 5			
STATEWIDE INDUSTRY	SAMPLE	RECEIVED	RESPONSE RATE
<u>TOTAL</u>	<u>4,667</u>	<u>3,035</u>	<u>65%</u>
Agriculture, forestry, fishing and hunting	72	44	61%
Mining	59	46	78%
Utilities	65	49	75%
Construction	305	193	63%
Manufacturing	496	358	72%
Wholesale Trade	259	165	64%
Retail Trade	622	354	57%
Transportation and Warehousing	206	121	59%
Information	125	76	61%
Finance and Insurance	220	139	63%
Real estate and rental and leasing	87	55	63%
Professional and technical services	230	158	69%
Management of companies and enterprises	71	48	68%
Administrative and waste services	196	105	54%
Educational services	261	208	80%
Health care and social assistance	513	351	68%
Arts, entertainment and recreation	90	62	69%
Accommodation and food services	388	197	51%
Other services, except public administration	165	108	65%
Government	237	198	84%

TABLE 6			
LOCAL AREA I SIZE	SAMPLE	RECEIVED	RESPONSE RATE
<u>TOTAL</u>	<u>953</u>	<u>675</u>	<u>71%</u>
Very Small (1-4 employees)	92	65	71%
Small (5-49 employees)	504	356	71%
Medium (50-249 employees)	265	200	75%
Large (250 or more)	92	54	59%

TABLE 7			
LOCAL AREA I INDUSTRY	SAMPLE	RECEIVED	RESPONSE RATE
<u>TOTAL</u>	<u>953</u>	<u>675</u>	<u>71%</u>
Agriculture, forestry, fishing and hunting	31	19	61%
Mining	19	16	84%
Utilities	12	7	58%
Construction	50	31	62%
Manufacturing	95	67	71%
Wholesale Trade	51	38	75%
Retail Trade	129	81	63%
Transportation and Warehousing	38	24	63%
Information	22	14	64%
Finance and Insurance	37	31	84%
Real estate and rental and leasing	10	5	50%
Professional and technical services	28	25	89%
Management of companies and enterprises	11	7	64%
Administrative and waste services	21	11	52%
Educational services	84	70	83%
Health care and social assistance	117	86	74%
Arts, entertainment and recreation	13	9	69%
Accommodation and food services	76	47	62%
Other services, except public administration	29	20	69%
Government	80	67	84%

TABLE 8			
LOCAL AREA II SIZE	SAMPLE	RECEIVED	RESPONSE RATE
<u>TOTAL</u>	<u>927</u>	<u>630</u>	<u>68%</u>
Very Small (1-4 employees)	142	91	64%
Small (5-49 employees)	412	276	67%
Medium (50-249 employees)	262	188	72%
Large (250 or more)	111	75	68%

TABLE 9			
LOCAL AREA II INDUSTRY	SAMPLE	RECEIVED	RESPONSE RATE
<u>TOTAL</u>	<u>927</u>	<u>630</u>	<u>68%</u>
Agriculture, forestry, fishing and hunting	13	8	62%
Mining	11	7	64%
Utilities	18	15	83%
Construction	61	40	66%
Manufacturing	86	65	76%
Wholesale Trade	30	22	73%
Retail Trade	125	69	55%
Transportation and Warehousing	45	35	78%
Information	30	18	60%
Finance and Insurance	41	27	66%
Real estate and rental and leasing	19	15	79%
Professional and technical services	40	29	73%
Management of companies and enterprises	18	15	83%
Administrative and waste services	31	11	35%
Educational services	54	44	81%
Health care and social assistance	104	76	73%
Arts, entertainment and recreation	22	18	82%
Accommodation and food services	81	35	43%
Other services, except public administration	36	24	67%
Government	62	57	92%

TABLE 10			
LOCAL AREA III SIZE	SAMPLE	RECEIVED	RESPONSE RATE
<u>TOTAL</u>	<u>1,250</u>	<u>777</u>	<u>62%</u>
Very Small (1-4 employees)	103	61	59%
Small (5-49 employees)	578	358	62%
Medium (50-249 employees)	387	232	60%
Large (250 or more)	182	126	69%

TABLE 11			
LOCAL AREA III INDUSTRY	SAMPLE	RECEIVED	RESPONSE RATE
<u>TOTAL</u>	<u>1,250</u>	<u>777</u>	<u>62%</u>
Agriculture, forestry, fishing and hunting	8	6	75%
Mining	8	5	63%
Utilities	12	9	75%
Construction	93	59	63%
Manufacturing	110	78	71%
Wholesale Trade	97	58	60%
Retail Trade	173	104	60%
Transportation and Warehousing	56	30	54%
Information	33	19	58%
Finance and Insurance	86	53	62%
Real estate and rental and leasing	26	18	69%
Professional and technical services	104	64	62%
Management of companies and enterprises	14	9	64%
Administrative and waste services	77	49	64%
Educational services	32	20	63%
Health care and social assistance	116	69	59%
Arts, entertainment and recreation	25	15	60%
Accommodation and food services	104	62	60%
Other services, except public administration	45	28	62%
Government	31	22	71%

TABLE 12			
LOCAL AREA IV SIZE	SAMPLE	RECEIVED	RESPONSE RATE
<u>TOTAL</u>	<u>893</u>	<u>564</u>	<u>63%</u>
Very Small (1-4 employees)	82	53	65%
Small (5-49 employees)	432	263	61%
Medium (50-249 employees)	267	177	66%
Large (250 or more)	112	71	63%

TABLE 13			
LOCAL AREA IV INDUSTRY	SAMPLE	RECEIVED	RESPONSE RATE
<u>TOTAL</u>	<u>893</u>	<u>564</u>	<u>63%</u>
Agriculture, forestry, fishing and hunting	6	3	50%
Mining	8	8	100%
Utilities	8	7	88%
Construction	70	45	64%
Manufacturing	110	83	75%
Wholesale Trade	49	34	69%
Retail Trade	126	67	53%
Transportation and Warehousing	35	17	49%
Information	18	14	78%
Finance and Insurance	31	16	52%
Real estate and rental and leasing	17	11	65%
Professional and technical services	39	27	69%
Management of companies and enterprises	13	10	77%
Administrative and waste services	44	21	48%
Educational services	44	34	77%
Health care and social assistance	110	77	70%
Arts, entertainment and recreation	17	10	59%
Accommodation and food services	86	34	40%
Other services, except public administration	33	24	73%
Government	29	22	76%

TABLE 14			
LOCAL AREA V SIZE	SAMPLE	RECEIVED	RESPONSE RATE
<u>TOTAL</u>	<u>473</u>	<u>341</u>	<u>72%</u>
Very Small (1-4 employees)	72	45	63%
Small (5-49 employees)	196	132	67%
Medium (50-249 employees)	133	107	80%
Large (250 or more)	72	57	79%

TABLE 15			
LOCAL AREA V INDUSTRY	SAMPLE	RECEIVED	RESPONSE RATE
<u>TOTAL</u>	<u>473</u>	<u>341</u>	<u>72%</u>
Agriculture, forestry, fishing and hunting	8	5	63%
Mining	7	6	86%
Utilities	11	9	82%
Construction	22	13	59%
Manufacturing	77	62	81%
Wholesale Trade	20	13	65%
Retail Trade	54	30	56%
Transportation and Warehousing	20	9	45%
Information	15	9	60%
Finance and Insurance	16	10	63%
Real estate and rental and leasing	7	4	57%
Professional and technical services	9	9	100%
Management of companies and enterprises	8	6	75%
Administrative and waste services	14	10	71%
Educational services	41	37	90%
Health care and social assistance	58	42	72%
Arts, entertainment and recreation	9	7	78%
Accommodation and food services	32	18	56%
Other services, except public administration	13	12	92%
Government	32	30	94%

TABLE 16			
SHAWNEE CO SIZE	SAMPLE	RECEIVED	RESPONSE RATE
<u>TOTAL</u>	<u>379</u>	<u>248</u>	<u>65%</u>
Very Small (1-4 employees)	68	41	60%
Small (5-49 employees)	159	99	62%
Medium (50-249 employees)	110	77	70%
Large (250 or more)	42	31	74%

TABLE 17			
SHAWNEE CO INDUSTRY	SAMPLE	RECEIVED	RESPONSE RATE
<u>TOTAL</u>	<u>379</u>	<u>248</u>	<u>65%</u>
Agriculture, forestry, fishing and hunting	5	4	80%
Mining	4	2	50%
Utilities	10	8	80%
Construction	23	14	61%
Manufacturing	33	26	79%
Wholesale Trade	13	9	69%
Retail Trade	50	26	52%
Transportation and Warehousing	21	14	67%
Information	15	11	73%
Finance and Insurance	20	12	60%
Real estate and rental and leasing	9	6	67%
Professional and technical services	17	12	71%
Management of companies and enterprises	9	8	89%
Administrative and waste services	14	4	29%
Educational services	14	10	71%
Health care and social assistance	42	28	67%
Arts, entertainment and recreation	9	8	89%
Accommodation and food services	28	13	46%
Other services, except public administration	15	9	60%
Government	28	24	86%

Comparison With Previous Job Vacancy Surveys (Shawnee County only)

This was the fourth year for LMIS to contract with GO Topeka, a committee of the Greater Topeka Chamber of Commerce, to conduct a job vacancy survey for Shawnee County. The methodology utilized for the surveys have varied, therefore, it is important to keep this in mind when comparing these survey results with previous surveys. Any modification made to the survey have been made in an effort to improve the reliability of the survey and the estimation method.

In 2003, LMIS implemented survey techniques based on recommendations by a multi-state Job Vacancy Survey Consortium Group. In 2004, additional changes were made which included weighting each employer in the sample relative to others in the area in the same industry and of the same size. This weight was then used to determine the “estimate” of the number of job vacancies for those establishments not included in the study. Table 18 illustrates the survey differences.

TABLE 18				
SHAWNEE COUNTY COMPARISON	2001	2002	2003	2004
Survey Sample	453	560	770	379
Number of Respondents	129	164	461	248
Response Rate	28%	29%	60%	65%
Number of Mailings	1	1	4	3
Survey Date	1/5/01	4/4/02	4/4/03 to 6/13/03	4/7/04 to 7/7/04
Requested Information	Only job vacancies paying over \$10.00 an hour	Only job vacancies paying over \$12.00 an hour	All job vacancies	All job vacancies
Estimation Process Used	no	no	no	yes
Total Number of Reported Job Vacancies	235	171	907	NA
Total Job Vacancies	NA	NA	NA	2,165

Acknowledgements

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